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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,034	02/27/2002	Steven Danyluk	63073/105	8432

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EXAMINER	
PHAM, TOAN NGOC	

ART UNIT	PAPER NUMBER
2632	

DATE MAILED: 09/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/084,034	DANYLUK ET AL.	
	Examiner	Art Unit	
	Toan N Pham	2632	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-20 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-20 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 7-13, and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Yasuhara et al. (US 4,646,070).

Regarding claim 1: Yasuhara et al. discloses a method for monitoring dielectric properties of a fluid, comprising the steps of providing a contact potential difference sensor (16); flowing a fluid past the sensor to generate a contact potential; and characterizing the contact potential as a measure of dielectric properties of the fluid (col. 2, lines 43-68); Figs. 1, 4b).

Regarding claim 2: Yasuhara et al. discloses the fluid comprises an oil (col. 2, lines 43-49).

Regarding claim 7: Yasuhara et al. discloses the fluid is oil which contains the condensed matter and gaseous matter (col. 2, lines 43-49).

Regarding claims 8 and 9: Yasuhara et al. discloses providing an outputting indicator (20) for indicating the alarm state of the oil conditions (col. 2,lines 43-49; col. 4, lines 14-38)

Regarding claim 10: Yasuhara et al. discloses a method for monitoring dielectric properties of a fluid, comprising a contact potential sensor; a fluid disposed in a closed

loop; and an output device (20) to indicate the operational condition of the fluid (col. 2, lines 43-68; col. 3, line 21-col. 4, line 39).

Regarding claims 11 and 12: Yasuhara et al. discloses the fluid comprises an oil (col. 2, lines 43-49) and is inherently hydrocarbon fluid.

Regarding claim 13: Yasuhara et al. discloses a machine maintenance indicator (20) (col. 4,lines 13-39).

Regarding claim 17: Yasuhara et al. discloses an oil pan of the engine with the sensor disposed therein (col. 3, lines 22-38).

Regarding claim 18: Yasuhara et al. discloses a closed loop which contains the fluid, the closed loop part of an industrial unit (col. 3, lines 22-55; Figs. 4a, 4b).

Regarding claim 19: Yasuhara et al. discloses the industrial unit is an internal combustion engine (Figs. 4a, 4b).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuhara et al. (US 4,646,070).

Regarding claim 3: Yasuhara et al. does not disclose comparing the standard fluid with the test fluid; however, Yasuhara et al. discloses a method for determining the

contaminated fluid from the indicator and its circuit (col. 2, lines 43-68; col. 3, line 63-col. 4, line 39); thus, whether the contaminated fluid is determined by comparing the fluid with a test fluid or by measuring the fluid is merely a matter of design choice to determine the deterioration of the fluid.

Regarding claim 4: Yasuhara et al. discloses establishing signatures associated with a particular dielectric state of the fluid (col. 2, lines 50-68).

Regarding claim 5: Yasuhara et al. discloses the molecular change relative to the standard fluid and presence of a contaminated material (col. 2, lines 43-68).

Regarding claim 6: Yasuhara et al. discloses the molecular change is from chemical degeneration and reaction based on the measured degree of deterioration (col. 3, line 63-col. 4, line 13).

Claims 14, 15, 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuhara et al. (US 4,646,070) in view of Bauer et al. (US 6,278,281).

Regarding claim 14: Yasuhara et al. does not disclose a computer for analyzing the fluid condition. Bauer et al. discloses a microcontroller (22) for controlling and analyzing the fluid condition (col.. 3, lines 37-43; Fig. 1). At the time of the invention, it would have been obvious to one of ordinary skill in the art to utilize a computing device to conveniently and accurately analyze and control the condition of the fluid.

Regarding claims 15 and 16: Bauer et al. discloses data characteristic of the fluid condition (col. 6, line 66-col. 7, line 20).

Regarding claim 20: Bauer et al. discloses the data storage contains data from test and comparing with data with the desired chemical state data (col. 7, line 1-col. 8, line 24).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art of Leidl et al. (US 6,774,645), Dickert et al. (US 5,674,401), Schoess (US 6,718,819), Kauffman (US 5,071,527), Park et al. (US 5,824,889), Huang (US 5,644,239), and McAdoo et al. (US 5,754,055) are cited to show a variety of fluid condition monitoring systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan N Pham whose telephone number is (571) 272-2967. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J Wu can be reached on (571) 272-2964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

September 17, 2004

TOAN N. PHAM
PRIMARY EXAMINER